

REMARKS

As a preliminary matter, Applicants appreciate the Examiner's indication of allowable subject matter in claims 2-4.

Claims 1 and 9 stand rejected under 35 U.S.C. §102(b) as being anticipated by Tsihlas (WO 02/085648). Applicants respectfully traverse the rejection because Tsihlas fails to disclose or suggest a tire cavity resonance restricting device that includes, among other things, a non-attachment portion of an elastic fixing member that is greater in mass than the attachment portion of the elastic fixing member.

In the outstanding rejection on page 2, the Examiner asserts that Tsihlas includes blocks corresponding to the cross-sectional area changing members of the present Application that are bonded to strips, which correspond to the elastic fixing member. In Tsihlas, there is no teaching that the mass of the non-attachment portion of the elastic fixing member is greater than the mass of the attachment portion of the elastic fixing member. In the device of Tsihlas, the ridge portion 44 is heavier in weight than the gap portion 46 and thereby weight distribution in the tire circumferential direction is unbalanced so that the running vibration of the tire occurs.

Paragraph [029] of Tsihlas merely teaches that strips 42, 43 may be formed by a tape or ribbon having blocks bonded thereto. Paragraph [037] of Tsihlas further teaches that the strips may be formed of rubber or plastic, metallic, or composite materials. However, Tsihlas is silent regarding any change in the elastic fixing member such that the non-attachment portion has a greater mass than that of the attachment

portion. For at least this reason the §102(b) rejection is improper, and should be withdrawn, which is respectfully requested.

Claim 7 stands rejected under 35 U.S.C. §102(b) as being anticipated by Tanno (JP 2003-226104). In response, Applicants amended claim 7 to clarify that the mass adjusting element is continuously provided on the non-attachment portion along the circumferential direction throughout the full length of the non-attachment portion, and respectfully traverse the rejection.

When a cross-sectional area changing member is provided inside the tire to restrict the tire cavity resonance, a portion in which the cross-sectional area changing member exists becomes heavier in weight than other portions. Along with this, weight balance in the tire circumferential direction is unbalanced, whereby a problem of a running vibration of the tire occurs.

The tire cavity resonance restricting device of the present invention has an elastic fixing member in a form of a ring and a cross-sectional area changing member, wherein by devising anyone of an elastic fixing member, a cross-sectional area changing member or a mass adjusting element, weight distribution in the tire circumferential direction is uniform as much as possible and thereby the above problem is solved.

The cross-sectional area changing member is mounted on the inner surface of the tread portion by use of elastic force of the elastic fixing member. (See paragraph [0020] of the description of the present Application). Accordingly, even if the tread portion of the tire fluctuates during running of the tire, such fluctuation is absorbed by elastic deformation of the elastic fixing member so that the cross-sectional area changing member can remain stably mounted on the inner surface of the tread portion.

In claim 7 of the present Application, the mass adjusting element is continuously provided on the non-attachment portion along the circumferential direction throughout the full length of the non-attachment portion and accordingly, compared with a case when the mass adjusting element is partially provided on the non-attachment portion, the present invention is more advantageous to uniform weight distribution in the tire circumferential direction.

In Tanno, fastening bands 8 are provided on a portion in which a cross-sectional area changing member 5 of an elastic fixing member 6 is not attached (non-attachment portion) and are not continuously provided along the circumferential direction throughout the full length of the non-attachment portion, whereby the device of Tanno is disadvantageous to uniform weight distribution in the tire circumferential direction. Since Tanno fails to disclose or suggest a mass adjusting element that is continuously provided on the non-attachment portion along the circumferential direction through the full length of the non-attachment portion, withdrawal of the §102(b) rejection of claim 7 is respectfully requested.

Claims 5-6 and 9-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yukawa (JP 2003-252003). In response, Applicants amended claim 5 to clarify that the holes are “through holes”, and respectfully traverse the rejection.

The Examiner asserts that the grooves/ridges 10A, 10B of FIGs. 7A-C of Yukawa define the area changing member of the present Application. The Examiner further asserts that the crevices 10A shown in FIG. 6B of Yukawa can be incorporated into the grooves/ridges to achieve the present invention. However, the structure of the crevices 10A of Yukawa are different from the structure of the present invention. In

particular, claim 5 now clarifies that the holes are “through holes”, as shown in FIG. 5 of the present Application. As can be seen in FIG. 5, the holes pass completely through the attachment portion 3X of the ring-shaped elastic fixing member 3.

In claim 5 of the present Application, the cross-sectional area changing member is provided with through holes therein, whereby it becomes light in weight, compared with a case when simple crevices are formed therein and accordingly it is advantageous to uniform weight distribution in the tire circumferential direction.

Additionally, a long sheet 5 of Yukawa is fixed on the inner surface of the tire with an adhesive and has no elastic fixing member in a form of a ring (see paragraph [0017]). Therefore, the adhesive exists in the same place as the long sheet 5 does, and does not exist where the long sheet 5 is not located and does not need to exist. Accordingly, based on Yukawa, it is not possible to achieve the concept of creating a uniform weight distribution in the tire circumferential direction.

Furthermore, with an adhesion by an adhesive, in the case when the tire tread portion fluctuates during running, there is a problem that due to such fluctuation, the adhesion layer is apt to be damaged.

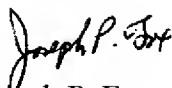
Since Yukawa fails to disclose or suggest through holes, and there is no motivation to create a uniform weight distribution in a tire circumferential direction since Yukawa has no elastic fixing member in the form of a ring, withdrawal of the §103(a) rejection of claims 5-6 and 9-13 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified Application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

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